

Phone – Reference Guide

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Summary: Phone

Definition

Phone number of individual or organization.

Data Storage and Field Values

The Phone data concept consists of 2 data elements. The variable names noted below specifically apply to the current home phone number of the subject of the report. Variable names for other uses of Phone, such as business phone number of the subject of the report, or phone number of a hospital or a provider, are not discussed in this document but will be discussed in subsequent releases.

Phone Number

Variable Name:	Phone
Type:	character
Length:	20
Reported to CDC:	No
Field Values:	Free-form

Valid Phone Number Indicator

Variable Name:	VALIDPHONE
Type:	character
Length:	1
Reported to CDC:	Yes
Field Values:	Y-Yes N - No

Missing Values

If the value of the Phone data element is missing, or does not adhere to the CIPHER standard, the data element may be noted as blank to indicate a missing value. If the program requires the reason the value is missing, use a separate 1-character field to denote the rationale behind the missing data. The use of a Missing Value Reason data element must adhere to the CIPHER definition and rules associated with missing data as described in Appendix I - Missing Value Reason.

Processing Overview

Special requirements apply. Refer to the Implementation subsection on Data Processing: Validations and Edit Checks, below, for detailed information.

EDI Summary

EDI sections are under construction.

Discussion

The Phone data concept is useful for patient follow-up, as well as for determining the location of a health care provider. A health care provider can be a physician or other practitioner; a physician or practitioner group; an institution such as a hospital, laboratory, or nursing home; an organization (e.g., a health maintenance organization); or a supplier (e.g., pharmacy or medical supply company). The CIPHER Phone data concept is therefore intended to be a general concept or definition applicable to a person or an organization.

If a program is interested in records with a particular area code and/or exchange, for example, it is important that the program first identify those records that have accurate and complete phone number data (i.e., records that meet the criterion VALIDPHONE="Y"). Refer to the Implementation subsection on Data Processing: Validations and Edit Checks, below, for detailed information on the definition and calculation of the VALIDPHONE variable.

Implementation: Phone

The implementation examples noted below specifically apply to the current phone number of the subject of the report. The implementation for other uses of phone, such as business phone of the subject of the report, or phone number of a hospital or provider, can be patterned after these implementation examples.

Data Collection: Hardcopy Report Form

A free-form entry field on the hardcopy report form is used for the collection of Phone data. The reporter transcribes the phone number in the free-form entry field. See Figures 1 and 2 below.

Figure 1: Blank Hardcopy Form section used to collect Phone

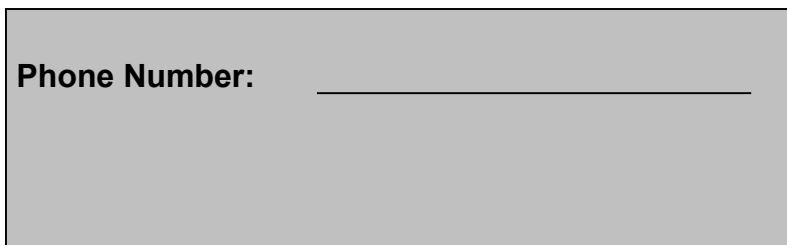
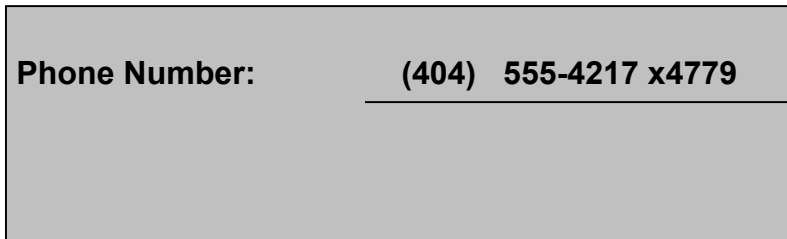
A rectangular box with a light gray background. On the left side, the text "Phone Number:" is printed in a bold, black, sans-serif font. To the right of this text is a horizontal line indicating a space for entry.

Figure 2: Completed Hardcopy Form section used to collect Phone

A rectangular box with a light gray background. On the left side, the text "Phone Number:" is printed in a bold, black, sans-serif font. To the right of this text, the phone number "(404) 555-4217 x4779" is handwritten in black ink. A horizontal line is positioned below the handwritten number.

Missing Values – Hardcopy Form

Examples of hardcopy forms using the associated Missing Value Reason data element can be found in Appendix I – Missing Value Reason. The hardcopy form need only contain a missing value reason if the program requires the rationale for a missing value for Phone.

Data Entry: Electronic Forms

A free-form entry field is used for the electronic entry of phone number data. The calculated field, VALIDPHONE, is displayed upon entry/update of the phone data. Because the value of the VALIDPHONE data element is calculated, VALIDPHONE is a display-only field, which the entry operator cannot access or modify. The calculated field is displayed in a box, labeled “Valid Phone Number =” located directly below the phone number data.

Upon entry of a phone number, a component parses the raw data into as many of the four main phone units as possible (Area Code, Exchange, Number, and Extension), and stores the data in (XXX)XXX-XXXXxXXXXX format. The phone number data are then redisplayed in the phone number field in the format in which the component stored the data. In addition, the value of VALIDPHONE is displayed in the Valid Phone Number box as Y (Yes) or N (No). The portion of the Valid Phone Number displayed outside the parentheses reflects the data that are stored.

Note: Case sensitivity is retained from data entry through storage. Thus, the free-form entered data are stored EXACTLY as they are entered (UPPERCASE, lowercase, or a mixture of both).

Figure 3: Blank Electronic Form used to collect Phone

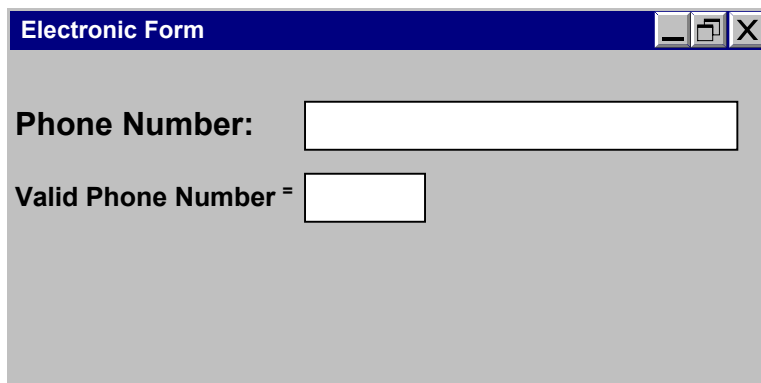
A screenshot of a software window titled "Electronic Form". Inside the window, there are two text input fields. The first field is preceded by the label "Phone Number:" and is currently empty. The second field is preceded by the label "Valid Phone Number =" and is also empty. The window has a standard Windows-style title bar with minimize, maximize, and close buttons.

Figure 4: Completed Electronic Form used to collect Phone

Note that this figure reflects the screen displayed before the user advances to the next entry field.

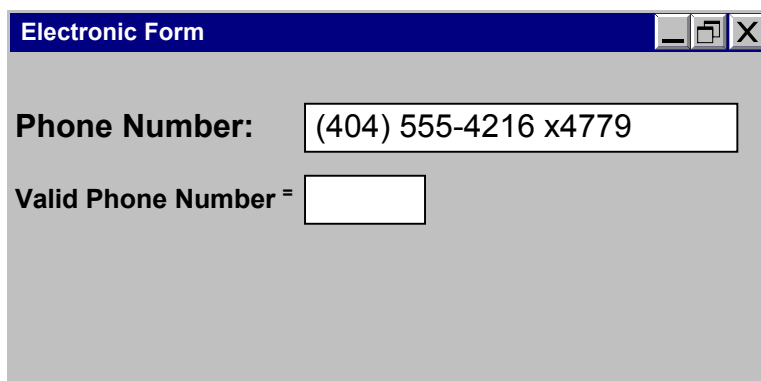
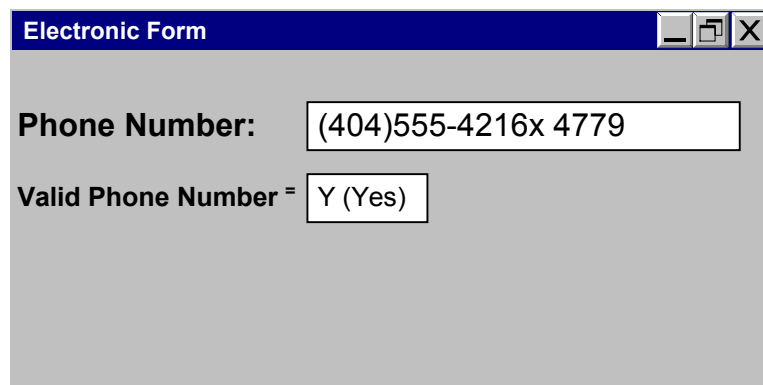
A screenshot of the same "Electronic Form" window, but now it contains data. The "Phone Number:" field is filled with the text "(404) 555-4216 x4779". The "Valid Phone Number =" field remains empty. The window's title bar and controls are the same as in Figure 3.

Figure 5: Completed Electronic Form used to collect Phone

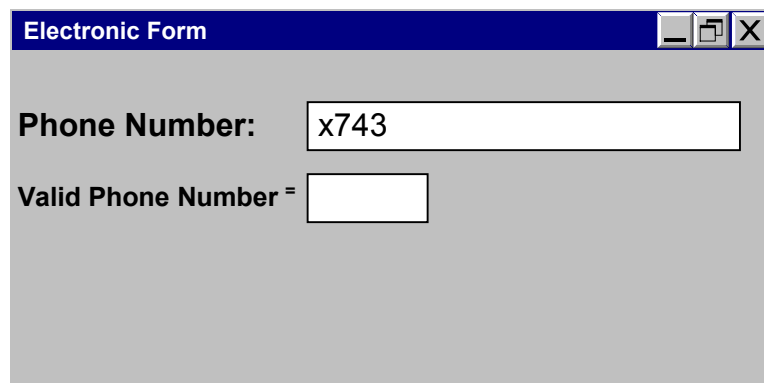
This figure shows the screen display after the user has advanced to the next entry field. Note the re-display of phone number data in standard phone number format (as stored), as well as the display of the valid phone number indicator data.



The screenshot shows a window titled "Electronic Form" with a blue header bar. Inside the window, there are two labels and two text input fields. The first label is "Phone Number:" followed by a text box containing "(404)555-4216x 4779". The second label is "Valid Phone Number =" followed by a text box containing "Y (Yes)".

Figure 6: Completed Electronic Form used to collect incomplete Phone data

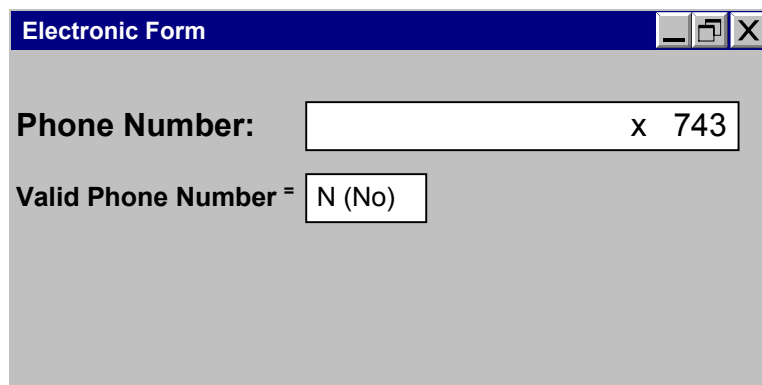
This figure reflects the screen display before the user advances to the next entry field.



The screenshot shows a window titled "Electronic Form" with a blue header bar. Inside the window, there are two labels and two text input fields. The first label is "Phone Number:" followed by a text box containing "x743". The second label is "Valid Phone Number =" followed by an empty text box.

Figure 7:**Completed Electronic Form used to collect incomplete Phone data**

This figure reflects the screen display after the user has advanced to the next entry field. Note the re-display of phone number data in the best standard phone number format possible (as stored), as well as the display of the valid phone number indicator data.



The screenshot shows a window titled "Electronic Form" with a blue title bar and standard Windows window controls. Inside the window, there are two labels and two input fields. The first label is "Phone Number:" followed by a text box containing "x 743". The second label is "Valid Phone Number =" followed by a text box containing "N (No)".

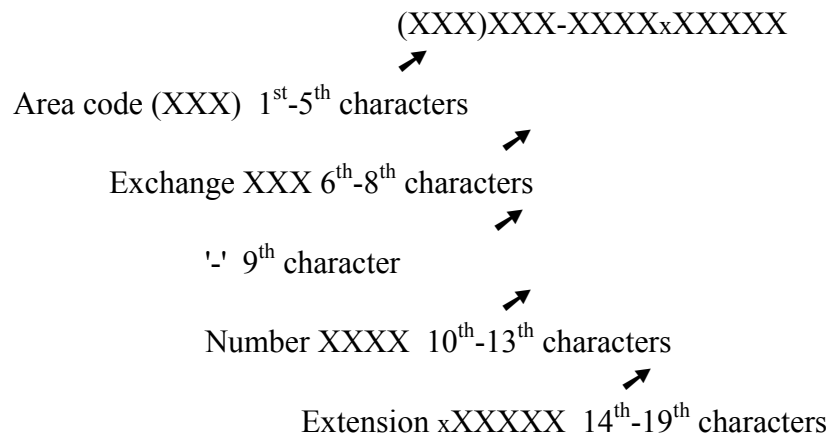
Missing Values – Electronic Form

Examples of electronic forms using the associated Missing Value Reason (MVR) data element can be found in Appendix I – Missing Value Reason. The electronic form needs to handle the Missing Value Reason only if the program requires the rationale for a missing value for Phone. If the user selects a missing value reason code during data entry, the Phone field will be blank and the screen will display the MVR information next to the blank field.

Data Processing: Validations and Edit Checks

Data elements entered in the electronic form will be edited as outlined below. If the program elects to use an associated Missing Value Reason data element for Phone, it will be edited as outlined in Appendix I – Missing Value Reason.

The free-form entry field for the data element Phone contains the four main parts of a phone number: Area Code, Exchange, Number, and Extension. Standard recommended format is:



The user may transcribe the phone number in any format in the 20-character free-form electronic entry field. A component (to be developed in the future) parses the entered text and stores the text in standard (XXX)XXX-XXXXxXXXXX “phone number format” when appropriate. If entered text does not adhere to a variation of this standard phone number format, then the text is stored exactly as entered, and no adjustments are made (with the exception of being right justified).

The data element VALIDPHONE indicates whether the data stored in the Phone data element adhere to the CIPHER standard format (XXX)XXX-XXXXxXXXXX. The VALIDPHONE data element is calculated by the component that parses the free-form phone number data in the Phone data element. The VALIDPHONE data element is a Yes/No type data element. VALIDPHONE is calculated as "Y" (Yes) if the Phone data adhere to CIPHER standards. VALIDPHONE is calculated to "N" (No) if the Phone data do not adhere to CIPHER standards. A VALIDPHONE value of "Y" indicates that the data in the Phone data element can be parsed into the units of Area Code, Exchange, Number, and Extension.

Consider the following examples of entry text that adheres to a variation of a “phone number format.” In all cases, VALIDPHONE is set to "Y". Text is subsequently stored in the standard (XXX)XXX-XXXXxXXXXX format within the Phone data element:

Entered Text

(404) 555-4216
(404) 555-4216 x4779
404-555-4216 x 345
404 555-4216 x 4779
404 555 4216 x 4779
404-555-4216
404 555 4216
404.555.4216
404-555-4216 x 12345

Stored Text in Phone

(404) 555-4216
(404) 555-4216x 4779
(404) 555-4216x 345
(404) 555-4216x 4779
(404) 555-4216x 4779
(404) 555-4216
(404) 555-4216
(404) 555-4216
(404) 555-4216x12345

Consider the following examples of entry text that does not adhere to a variation of a “phone number format.” In all cases, VALIDPHONE is set to "N". Text is subsequently stored in the exact format in which text was entered (with the exception of being right justified). Note that this covers partial phone numbers as well as international phone numbers. When partial numbers are entered, the system will attempt to store the partial number in the correct location within the free-form data element. For example, if an extension x234 is entered, the text **x 234** will be stored in the 14th-19th characters of the 20-character free-form entry field.

Entered Text

555-4217x4779
378
x743
011-39-81-3452345
9-1234-56-12

Stored Text in Phone

555-4216x 4779
378
x 743
011-39-81-3452345
9-1234-56-12

Data Processing: From Hardcopy to Storage

The following example illustrates the flow of information from data collection on the hardcopy form, to data entry into the electronic form, to validations and storage in the database.

The process begins with the blank Hardcopy data collection form used to collect Phone:



The Phone information is captured on the form, creating a completed Hardcopy data collection form:



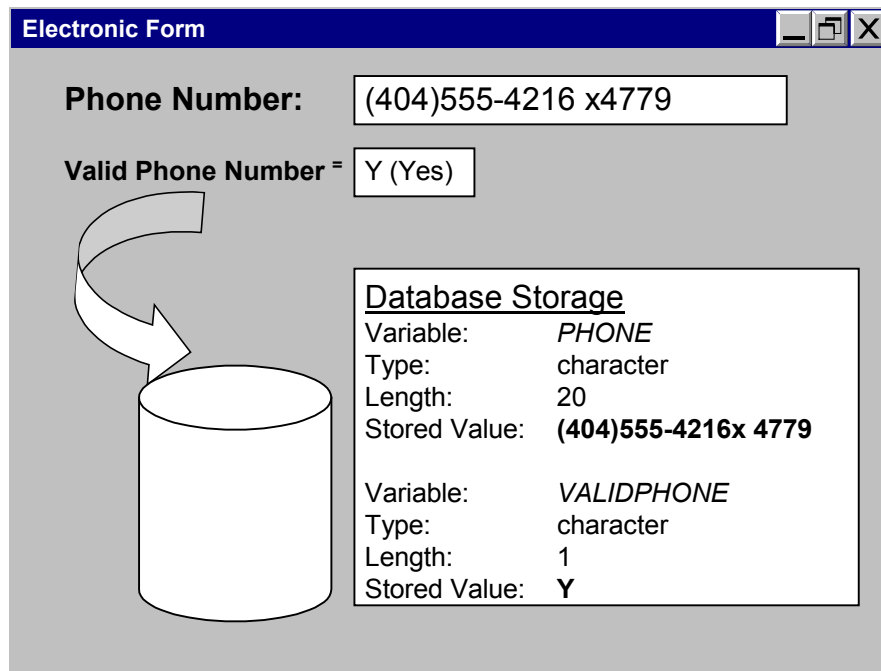
The process continues with a blank Electronic form/data entry screen used to capture Phone:



The value from the hardcopy form is entered into the Electronic form/data entry screen and then the edits and validations are performed on Phone:



The completed Electronic form/data entry screen is redisplayed and Phone is stored in the database:



Electronic Form

Phone Number: (404)555-4216 x4779

Valid Phone Number = Y (Yes)

Database Storage

Variable:	PHONE
Type:	character
Length:	20
Stored Value:	(404)555-4216x 4779
Variable:	VALIDPHONE
Type:	character
Length:	1
Stored Value:	Y

Data Transmission: Electronic Data Interchange

Note: EDI sections are under construction.